

Watervliet Arsenal  
Greenhouse  
(Building 12, Community Facility)  
Farley Drive southeast of the intersection  
of Farley Drive and Bricker Lane  
Watervliet  
Albany County  
New York

HABS No. NY-5521H

HABS  
NY

1-Water

1/12-

#### PHOTOGRAPHS

#### WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey  
National Park Service  
Department of the Interior  
Washington, D.C. 20013-7127

HISTORIC AMERICAN BUILDINGS SURVEY

WATERVLIET ARSENAL  
GREENHOUSE  
(Building 12, Community Facility)

HABS No. NY-5521H

HABS  
NY  
1-WAVL  
1/12 -

Location:

Farley Drive southeast of the intersection of  
Farley Drive and Bricker Lane,  
Watervliet Arsenal,  
Watervliet,  
Albany County, New York.

USGS Troy South Quadrangle, Universal Transverse  
Mercator Coordinates: 18.605985.4730440

Present Owner and Occupant: U.S. Army

Present Use: Horticultural facility for use of military  
personnel at the arsenal

Significance: The building is an intact example of early  
twentieth-century greenhouse construction. It is  
a vestige of the time when the Army ornamented  
its installations with formal gardens and is  
probably one of the few remaining Army-owned  
greenhouse structures.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: The arsenal's 1910 historical report (Stephenson) lists the date of construction as 1903.
2. Architect: A drawing of the structure (HABS Photo No. NY-5521H-7) is signed by Hitchings & Co. of New York City.
3. Original and subsequent owners: U.S. Army
4. Builder, contractor, suppliers: Not known.
5. Original plans and construction: Only one drawing, a section of one of the gable-roofed wings and a sill plan, was located (HABS Photo No. NY-5521H-7). The drawing is in the arsenal's Engineering Division.
6. Alterations and additions: The structure appears to have remained unaltered until 1968, when small colored panes of glass surrounding the tripartite windows on all sides of the middle section were replaced with clear glass. The steam heating system was also replaced at the same time. Plans documenting these changes are in the Engineering Division.

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B. Historical Context:

In a letter dated July 5, 1902, the arsenal's commander, Colonel J. L. Farley, commented on the need for a new greenhouse to shelter plants used to ornament the arsenal grounds. The old greenhouse had deteriorated so much that it was unsafe, and Farley had authorized its demolition in May. He requested additional funds to build an elaborate structure that would not detract from the adjacent commanding officer's quarters (Kyle, pp. 557-558). Despite the need to protect valuable ornamental plants during the winter months, the greenhouse was not completed until the following year (Stephenson). In the mid-1960s, the Army discontinued formal use of greenhouses on its installations. The structure at Watervliet survived and is now used by military personnel at the arsenal as a horticultural facility. (For further documentation see HAER No. NY-1A.)

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: This one-story stone, brick, and glass structure is an integral element of the housing area at the north side of the arsenal. Its glass walls and ornamentation contrast with the heavier, classically detailed commandant's quarters to its south.
2. Condition of fabric: The building is generally in good condition and is well maintained.

B. Description of Exterior:

1. Over-all dimensions: This one-story, rectangular building measures 66' 8" (front) x 19' 1". It is divided into three sections, the center section being the largest (24' x 21' 2") and the tallest. The east and west ends measure 21' 4" x 19' 1".
2. Foundations: Foundation walls are 6" brick with a 6" stone veneer on the exterior.
3. Walls: A low, coursed ashlar wall encircles the exterior. On the gable ends, walls above the windows are glass with slender wood ribs. On either side of the doors in the center section are single lights flanked by three large lights that are framed by smaller lights.

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4. Structural system, framing: In the center section steel ribs rise from the top of the wall adjacent to the doors and corners to a steel ridge. In the east and west ends, four evenly-spaced steel ribs rise from the top of the wall to a steel ridge.
  5. Openings:
    - a. Doorways and doors: The center section is entered from the north and south sides. On the north, the doorway contains two single-panel, single-light wood doors below a wood bracketed, gabled hood (HABS Photo No. NY-5521H-2). The entrance on the north is similar but contains a single door. The end sections are entered on the east and west sides. Both entrances contain single two-panel doors with four lights below a wood, bracketed, gabled hood.
    - b. Windows: On the east and west sections, windows directly above the stone walls are top-hinged arched lights arranged in groups of seven. A row of top-hinged windows with rectangular lights is set just below the ridge on the south and north sides. A row of top-hinged windows with arched lights runs below the roof of the center section and eight-light, top-hinged windows open on either side of the ridge.
  6. Roof:
    - a. Shape, covering: The east and west ends are gabled. Each has overlapping panes of glass with ribs running from the guttered eaves to the ridge. A row of decorative cast-iron cresting runs the length of each ridge. The center section has a glass curved hip roof with a gablet at its ridge.
    - b. Cornice, eaves: Metal gutters form the eaves on all sections.
- C. Description of Interior:
1. Floor plans: The interior is divided into three rooms corresponding to the three sections of the building. Planting tables line the north and south walls and the center of all three sections. (See supplemental material, floor plan)
  2. Flooring: Floors are packed earth with concrete walks. Steam trenches are cut in the floor below the planting tables.
  3. Wall and ceiling finish: Lower exterior walls and walls dividing the rooms are brick with a metal cap. Remaining walls are glass. Ceilings are glass with exposed wood ribbing and steel frames.

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4. Openings:

- a. Doorways and doors: Doors between the east and west ends and the center have a single raised panel below four lights.
- b. Windows: Window finishes are identical to the exterior. In the east and west ends, windows along the ridge are operated by metal wheels attached to vertical rods that are bolted to the central planting table. When the wheels are turned, the rods rotate gears which open the windows (HABS Photo No. NY-5521H-4). Apparatus for opening windows above the stone and brick walls are bolted to the side planting tables. Windows in the center section are operated by similar apparatus bolted to the steel frame (HABS Photo No. NY-5521H-5 and HABS Photo No. NY-5521H-3).

5. Mechanical equipment:

- a. Heating, ventilation: The building is heated by steam and ventilated through the window openings.
- b. Lighting: Fluorescent ceiling fixtures are hung along the ridges.

D. Site:

Located south of Bricker Lane, the building is situated north of the commandant's quarters (HABS No. NY-5521-B). It is immediately surrounded by landscaped open space, curving drives, and officers' quarters. The arsenal's industrial and maintenance areas lie to the southwest.

PART III. SOURCES OF INFORMATION

A. Architectural Drawings:

Section and Plan for Colonel J. L. Farley, showing section of even span house and sill plan, Hitchings & Co., New York City. June 19, 1902. Watervliet Arsenal Engineering Division. Only early drawing of the building located. (HABS Photo No. NY-5521H-7)

Repairs to Building No. 12. 1968. Watervliet Arsenal Engineering Division. Documents removal of colored glass on central section and replacement of heating system.

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B. Early Views:

West and south elevations of greenhouse. Taken April 1, 1942.  
Watervliet Arsenal Museum. (HABS Photo No. NY-5521H-6)

C. Bibliography:

1. Primary and unpublished sources:

Stephenson, F. J. "Historical Sketch of Watervliet Arsenal."  
Watervliet, New York: Watervliet Arsenal, July 1, 1910. Record  
Group 156, Records of the Office of the Chief of Ordnance, Entry  
30025-D, Subentry 227. Navy and Old Army Branch, National  
Archives, Washington, D.C. Gives date of construction as 1903.

2. Secondary and published sources:

Building Technology, Inc. Historic Properties Report Watervliet  
Arsenal, Watervliet, New York and Rotterdam Family Housing Area,  
Rotterdam, New York. January 1985. The report and inventory  
cards for the arsenal are filed as field records in the Prints  
and Photographs Division, Library of Congress under HAER No.  
NY-1A.

Kyle, Francis K. A History of Watervliet Arsenal. Watervliet,  
New York: Watervliet Arsenal, 1920. Quotes contemporary  
correspondence on construction of the greenhouse. Copy available  
in the Watervliet Arsenal Museum.

D. Likely Sources Not Yet Investigated:

Records of the Office of the Chief of Ordnance, Record Group 156, and  
Records of the Office of the Chief of Engineers, Record Group 77,  
Navy and Old Army Branch, National Archives, Washington, D.C. should  
be further investigated.

E. Supplemental Material:

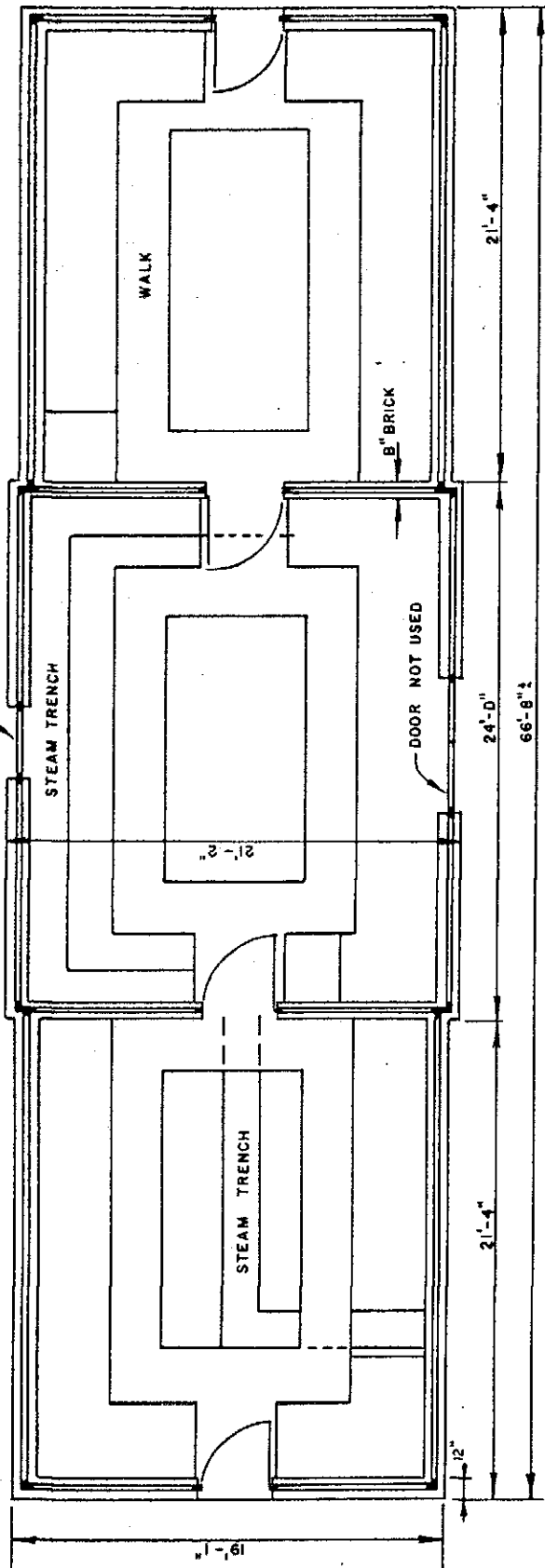
Plan and Section, Building No. 12. March 1972. Watervliet Arsenal  
Engineering Division.

Prepared by: Barbara E. Hightower  
Historian  
MacDonald and Mack Partnership  
February 1985

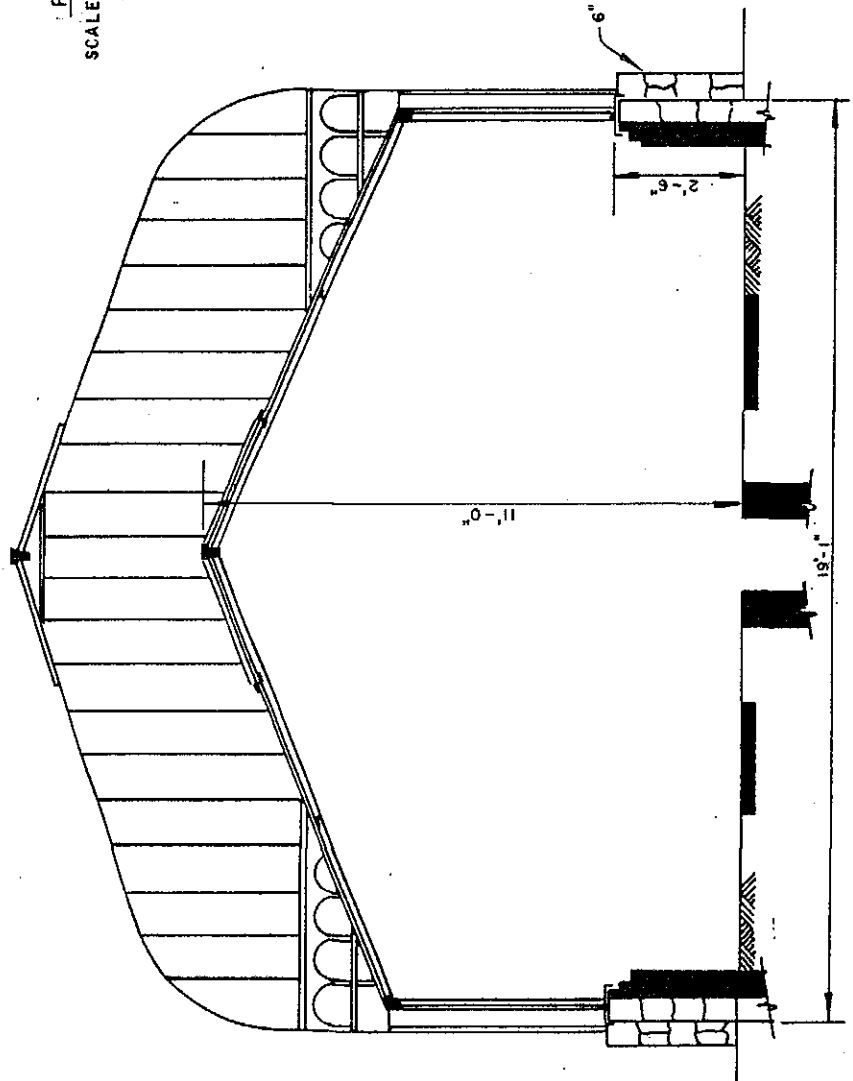
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PART IV. PROJECT INFORMATION

This project was part of a program initiated through a memorandum of agreement between the National Park Service and the U.S. Department of the Army. Stanley H. Fried, Chief, Real Estate Branch of Headquarters DARCOM, and Dr. Robert J. Kapsch, Chief of the Historic American Buildings Survey/Historic American Engineering Record, were program directors. Sally Kress Tompkins of HABS/HAER was program manager, and Robie S. Lange of HABS/HAER was project manager. Under the direction of William A. Brenner, Building Technology Incorporated, Silver Spring, Maryland, acted as primary contractor, and MacDonald and Mack Partnership, Minneapolis, was a major subcontractor. The project included a survey of historic properties at Watervliet Arsenal, as well as preparation of an historic properties report and HABS/HAER documentation for 17 buildings. The survey, report, and documentation were completed by Barbara E. Hightower, historian, Minneapolis. The photographs were taken by Robert A. Ryan and J Ceronie of Dennett, Muessig, Ryan, and Associates, Ltd., Iowa City, Iowa. Drawings were produced by Gary M. Louris, Minneapolis.



PLAN  
SCALE: 1/8" = 1'-0"



SECTION  
SCALE: 1/4" = 1'-0"

WATERVLIET ARSENAL  
WATERVLIET, NY

Drawn by: J.R. GANGLI, A.E. App'd by: *[Signature]*  
Revisions: 3/7/71

PLAN & SECTION  
CRAFT SHOP  
BUILDING NO. 12

Scale: AS SHOWN Date:

NET FLOOR AREA  
Square feet  
FLOOR CAPACITY  
Per square foot